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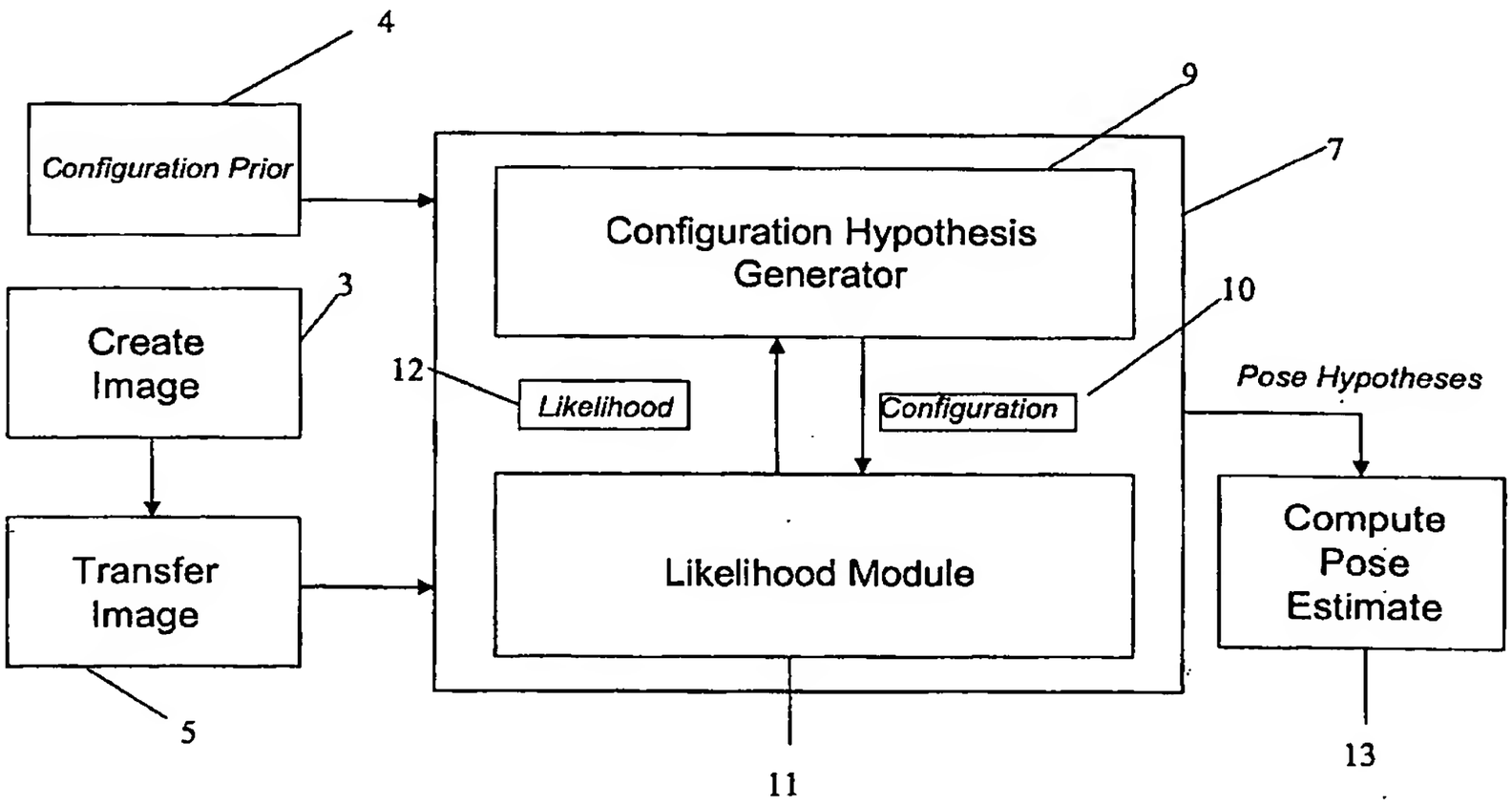
(54) Title: METHOD AND SYSTEM FOR DETERMINING OBJECT POSE FROM IMAGES



(57) Abstract: A method and system for identifying an object or structured parts of an object in an image. A set of templates are created for each of a number of the parts of the object and the templates are applied to an area of interest in an image where it is hypothesised that an object part is present. The image is analysed to determine the probability that it contains the object part. Thereafter, other templates are applied to other areas of interest in the image to determine the probability that this area of interest belongs to a corresponding object part. The templates are then arranged in a configuration and the likelihood that the configuration represents an object or structured parts of an object is calculated. This is calculated for other configurations and the configuration that is most likely to represent an object or structured part of an object is determined. The method and system can be applied to creating a markerless motion capture system and has other applications in image processing.

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electrónic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	IOFFE S ET AL: "Human tracking with mixtures of trees" CONFERENCE PROCEEDINGS ARTICLE, vol. 1, 7 July 2001 (2001-07-07), pages 690-695, XP010554049 section "1. Introduction" section "2. Modeling with trees" section "3. Learning a tree model" section "5.2. Tree root as a coordinate frame" section "6. Tracking" section "6.1. Detecting body parts" section "6.2. Modeling the body" ----- -/--	1-7,9, 10, 15-24, 26,27, 33-37

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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"P" document published prior to the international filing date but later than the priority date claimed

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Date of the actual completion of the international search	Date of mailing of the international search report
7 December 2004	23/12/2004

Name and mailing address of the ISA	Authorized officer
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 269 172 B1 (MORRIS DANIEL D ET AL) 31 July 2001 (2001-07-31) column 3, lines 46-76 column 4, lines 52-56 column 5, lines 11-16,58-60 column 6, lines 17-23 figure 5c -----	1-37
A	REHG J M ET AL: "Model-based tracking of self-occluding articulated objects" COMPUTER VISION, 1995. PROCEEDINGS., FIFTH INTERNATIONAL CONFERENCE ON CAMBRIDGE, MA, USA 20-23 JUNE 1995, LOS ALAMITOS, CA, USA,IEEE COMPUT. SOC, US, 20 June 1995 (1995-06-20), pages 612-617, XP010147042 ISBN: 0-8186-7042-8 abstract section "1 Introduction" section "4 Registering Layered Templates" figure 7 -----	1-37

INTERNATIONAL SEARCH REPORT

Information on patent family members

Inten ial Application No
PCT/GB2004/001545

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6269172	B1 31-07-2001	NONE	